

## Serum micronutrients level in selected Malaysian Indian populations - preliminary findings

Type: Meeting Abstract

Content:

A pilot study in 1995 on 46 Malaysian had shown that mean serum levels of alpha carotene (AC), beta carotene (BC), retinol (Ret) and alpha-tocopherol (AT) in patients with oral cancer, leukoplakia or chewer's mucosa were lower when compared to patients without lesion. The purpose of this study is to further investigate the serum levels of certain micronutrients in a selected group of Indians from estate population in Malaysia. Out of 561 subjects screened for oral cancer and/or precancer (OPC), blood samples were obtained from more than 300 subjects. Serum analysis for Ret, AT, Zeaxanthin/Lutein (Z/L), Cryptoxanthin (Cry), Lycopene (Lye), AC, BC have currently been completed for 255 subjects. The mean age of these 255 subjects was  $46.62 \pm 11.57$  years. Out of 255 subjects 80 (31.4%) had no lesions, 62 (24.3%) had chewer's mucosa and 95 (37.3%) had OPC and 18 (7.1%) had other lesions. Except for BC and Z/L, serum levels of micronutrients Ret, AT, Cry, Lye and AC were lower in subjects with OPC when compared to those without lesion. However, there was no significant difference observed between these groups. Similarly, when subjects with leukoplakia (67 cases) were compared with those without lesions, it was found that whilst all values were lower in the former, there was no significant difference observed. A comparison of prevalence of quid chewing and OPC showed a statistically significant association ( $p < 0.001$ ). Furthermore, 2 variables namely, quid chewing (odds ration= 34.0) and AC (odds ratio= 0.76) were detected as risk factors in a logistic regressive analysis. The present preliminary result suggests that the prevalence of OPC and in particular leukoplakia in significantly associated with quid chewing and/or lower serum level of AC in these populations.

Author	Zain, R. B. ; Shanmuhasuntharam, P. ; Fukano, H. ; Ikeda, N. ; Razak, L. A. ; Ghazali, M. N. ; Yano, M. ; Miyazaki, H. ; Ito, Y.
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